

Appl. No. 09/715,668  
Amendment dated July 24, 2006  
Reply to Office action of February 22, 2006

### REMARKS/ARGUMENTS

Claims 1 through 27 were pending in this application.

The present Amendment amends claims 1, 16, and 20 and cancels claim 15 without prejudice or disclaimer.

The Examiner is thanked for the indication that claims 13, 14, and 27 are allowed.

Reconsideration and favorable action are respectfully requested.

#### Rejections Under 35 U.S.C. § 102(e)

Claims 1-3, 5-11, and 15-25 are rejected 35 U.S.C. § 102(e) as being anticipated by Lin et al (US 6,553,063; hereafter, "Lin '063"). Applicants respectfully traverse this rejection based on the claims prior to the present amendment, but in an effort to advance prosecution of this case and without narrowing the present claims, Applicants herein amend the claims to restate the previous limitations in an alternative and non-narrowing manner that is consistent with the Specification and again under which the claims are not anticipated by Lin '063.

The Specification at page 7 describes a transmitting station and at page 8 describes a corresponding receiving station. Both of these stations communicate with an aspect in the amended claims, whereby *a same packet is transmitted and received more than once*. For example, with respect to the transmitter 13 of Figure 1, the Specification states as follows:

FIGURE 1 diagrammatically illustrates exemplary embodiments of a wireless packet transmitting station according to the invention. The transmitting station of FIGURE 1 *transmits each packet N times (an original transmission + N-1 retransmissions)*. In the example of FIGURE 1, packet 1 is initially loaded into a buffer 11, and is sequentially transmitted by a wireless transmitter 13 over a wireless communications link 15 *for a total of N transmissions. When the transmitter 13 has completed the Nth transmission, a signal 17 is output from the transmitter 13 in order to load the next packet, namely packet 2 into the buffer 11. Thereafter, packet 2 is transmitted N consecutive times, and the process is repeated for each packet in the packet sequence designated generally at 14.*<sup>1</sup>

Similarly, with respect to the receiving station of Figure 10, the Specification states as follows:

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<sup>1</sup> Specification, page 7, lines 2-12 (emphasis added).

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FIGURE 10 diagrammatically illustrates pertinent portions of exemplary embodiments of a wireless packet receiving station according to the invention. The packet receiving station of FIGURE 10 includes a transmitted bit sequence determiner 100 *which receives* (via an unillustrated wireless communications interface) *N received bit sequences which each correspond to a transmitted bit sequence that has been included in each of N packets transmitted*, for example, by the transmitting station of FIGURE 1. The transmitted bit sequence determiner also receives communication quality information respectively corresponding to the N packet transmissions (and thus to the N received bit sequences). The transmitted bit sequence determiner 100 *then makes a determination as to the transmitted bit sequence, based on the N received bit sequences* and the corresponding communication quality information.<sup>2</sup>

Based on the preceding, clearly there is an aspect by the transmitter of multiple transmissions of the same packet, and correspondingly there is an aspect of the receiver to receive signals corresponding to the multiple transmissions of that same packet. Applicants respectfully submit that these aspects existed in various of the claims pending prior to the present amendment in the form of the recitation of "a plurality of transmissions" of "the desired bit sequence;" however, based on the present rejection under Lin '063 which does not show such an aspect, Applicants herein amend claim 1 (and other claims) to use as an alternative the language from the Specification relating to the number N, which clearly must be greater than one in order to transmit the packet (or recited "desired bit sequence") N times, which thereby includes example of the the original transmission and any "retransmissions"<sup>3</sup> of that packet.

In contrast to the preceding, Lin '063 neither discloses, teaches, nor suggests a transmission and retransmission of a desired bit sequence more than once. Not surprisingly, therefore, the remaining teachings of Lin '063 are directed to a very different background than is the present inventive scope.

As a result of the above, claim 1 is in condition for allowance, as are its dependent claims 2-6 and 10-12.

Independent claim 16 also is rejected in view of Lin '063, and it is amended herein in a manner comparable to claim 1. Thus, for the same reasons as set forth above with respect to claim 1, claim 16 is in condition for allowance, as are its dependent claims 17-19 and 23.

Independent claim 20 is rejected also in view of Lin '063, and it is amended herein in a manner comparable to claim 1. Thus, for the same reasons as set forth above with respect to claim 1, claim 20 is in condition for allowance, as are its dependent claims 21-22 and 24-26.

<sup>2</sup> Specification, page 8, lines 1-6 (emphasis added).

<sup>3</sup> Specification, page 7, line 7.

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Independent claim 7 is not amended herein, but Applicants respectfully traverse the rejection of this claim, and its dependent claims, in view of Lin '063, for the reasons set forth below.

The Examiner addresses on page 4 of the present Office Action various elements of claim 7, and attention is noted with respect to the next-to-last and last subparagraphs of claim 7. The Examiner contends that Lin '063 discloses these subparagraphs. However, Applicants respectfully disagree.

With respect to claim 7, it recites, among other things, "providing ... a plurality of **predetermined** probabilities that the respective received bit sequences correspond to a **predetermined** bit sequence that could possibly be the desired bit sequence" and "multiplying the predetermined probabilities together to produce a product." For support for this claim 7 language, Applicants respectfully invite the Examiner to review the present Specification at pages 9 through 13 and also Figure 2. As summarized within these Specification pages, "[a]lso input to the look-up table 23 are all possible transmitted bit sequences, designated as  $x(i)$  in FIGURE 2,"<sup>4</sup> thereby demonstrating an embodiment of the recited "predetermined bit sequence." In other words, in this example the set of all possible transmitted bit sequences thereby provide **predetermined** sequences. Also, in various manners, such as based on experimentation as detailed on page 10, for each of these predetermined sequences a respective **predetermined** probability also is generated, for example in connection with SNR (or other quality information). Thus, as the Specification concludes, "[f]or each of the  $2^K$  possible transmitted sequences represented by  $x(i)$ ,  $N$  **corresponding probabilities** are (stored in and) obtained from the look-up table 23, one probability for each of the  $N$  packets" – thus, this demonstrates the "plurality of **predetermined** probabilities" of claim 7. Lastly, page 18 of the Specification details how products are determined from these probabilities, as also shown at 24 in Figure 2.

In contrast to the preceding, Lin '063 does not disclose the recited **predetermined** probabilities and does not disclose any type of **predetermined** bit sequence. Further, Lin '063 does not disclose any multiplying step with respect to these values, as set forth in the last subparagraph of claim 7. To the extent the Examiner suggests such an aspect is inherent, Applicants respectfully disagree and request the Examiner to put into the record some evidence that one skilled in the art would understand such aspects to be inherent in Lin '063. Thus, for these reasons, claim 7 is in condition for allowance, as are its dependent claims 8 and 9.

#### Fees

A Petition for a two month extension of time is submitted herewith, thereby extending the deadline to respond from May 22, 2006 to July 24, 2006 (since July 22, 2006 falls on a weekend). The Commissioner is authorized to charge the fee for said Petition, and any other fees necessary to effect the present filing, to Deposit Account 20-

<sup>4</sup> Specification, page 11, lines 12-13.

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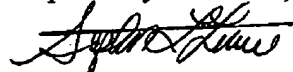
0668 of Texas Instruments Incorporated, as also shown in the Per the FY2006 Fee Transmittal submitted herewith.

The Commissioner is also authorized to charge any other fees necessary to effect the present filing to Deposit Account 20-0668 of Texas Instruments Incorporated, as also shown in the Per the FY2006 Fee Transmittal submitted herewith.

Conclusion

Applicant respectfully requests that a timely Notice of Allowability be issued in this case.

Respectfully submitted,



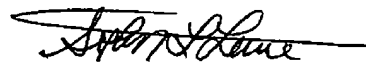
Stephen L. Levine  
Registry No. 33,413

Anderson, Levine & Lintel, L.L.P.  
14785 Preston Road, Suite 650  
Dallas, Texas 75254  
(972) 664-9552  
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37 C.F.R. 1.8

The undersigned hereby certifies that this correspondence is being transmitted via facsimile, on April 6, 2006, to the United States Patent Office and more particularly to the Patent Office Central FAX Number of 571-273-8300 and addressed to:

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Stephen L. Levine  
Registry No. 33,413